

Claims

1. A zeolitic composition comprising:

5 ① at least one zeolite which can be selected from A, X and/or Y zeolites (which are synthetic zeolites) and/or from zeolites of the chabazite type (which are natural zeolites), regardless of the associated cation or cations on one and/or the other of these zeolites,

10 and ② at least one zeolite of the clinoptilolite type, and regardless of the associated cation or cations, which may be different or not from that or those of the zeolite or zeolites as defined in ①.

2. The composition as claimed in claim 1, characterized in that the zeolite or zeolites as defined in ① accounts for at least 50% and, advantageously, between 70 and 90%, of the total zeolitic mass of the composition of the invention, the zeolite or zeolites as defined in ② accounting for up to 50% and, advantageously, between 10 and 30%, of the total zeolitic mass of said composition.

3. The composition as claimed in either of claims 1 and 2, characterized in that it is in powder form.

20 4. The composition as claimed in either of claims 1 and 2, characterized in that it is in the form of agglomerated objects, with a preferable average particle size distribution of between about 0.4 mm and 5 mm, and advantageously of between about 1 and 3 mm.

5. A method for preparing a composition as claimed in claim 3, by intimate mixing of powders of zeolites ① and ②.

6. The method for preparing a composition as claimed in claim 3, by intimate mixing of powders of zeolites ① and ②, followed by an agglomeration step with or, preferably, without binder, and optionally in the presence of water and of one or more shaping additives, followed by a drying and activation step.

30 7. The use of a zeolitic composition as claimed in claims 1 to 4, for removing H₂O and/or CO₂ and/or H₂S present in gas or liquid mixtures.

8. The use as claimed in claim 7, for drying and/or removing H₂O and/or CO₂ and/or H₂S present in natural gas and/or acid gases.

9. The use as claimed in claim 8, for removing water and H₂S present in a low acid natural gas, of a zeolitic composition based on 5A zeolite (①) and clinoptilolite (②) and/or of a composition based on chabazite (①) and clinoptilolite (②).

10. The use as claimed in claim 8 for removing water present in a high acid natural gas or in a gas essentially composed of H₂S and CO₂, of a composition based on 3A zeolite (①) and clinoptilolite (②), and preferably of a composition based of chabazite (①) and clinoptilolite (②).

11. The use as claimed in claim 7, of H₂O and/or CO₂ and/or H₂S present in alcohols and/or mercaptans.